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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/522,719 | 01/28/2005 | Karl Haberle | 264520US0PCT | 7449 |
| 22850 7590 07/03/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER SERGENT, RABON A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1711 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/522,719

Applicant(s)

HABERLE ET AL.

Examiner

Rabon Sergent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

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1. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 2, applicants have claimed ranges of percent values for each of components (A), (B), and (C); however, the ranges set forth endpoints which are not workable. For example, if 60% by weight of component (B) is present and the minimum amount of component (A) (40% by weight), then none of component (C) can be present.

With respect to claim 3, applicants have claimed that component (C1) contains exactly one nonionic hydrophilic group; however, applicants then specify in claims that depend on claim 3 that the component contains multiple ethylene oxide units per molecule. Since a single ethylene oxide unit constitutes a hydrophilic group, claims 4 and 5 are not considered to be further limiting of claim 3 in view of their multiple hydrophilic groups. Alternatively, if claims 4 and 5 are further limiting, as drafted, then the requirement set forth within claim 3 is ambiguous, because it is not clear what constitutes the claimed hydrophilic group.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-5 and 8-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Haeberle et al. ('367).

Patentees disclose dispersible polyisocyanate compositions, suitable for producing aqueous dispersions, coatings, and adhesives, wherein the dispersible polyisocyanates are produced by blending one or more polyisocyanates having a mean functionality of from 2.5 to 3.5 with an emulsifier produced by reacting a diisocyanate with a monohydric polyalkylene ether alcohol having 8 or more ethylene oxide units. Patentees further disclose that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are "particularly preferred". Biuret containing polyisocyanates and mixtures of the disclosed polyisocyanates are also disclosed as being suitable. See abstract; column 1, lines 7-28; column 2, lines 4+; column 3, lines 34+; column 4, lines 9+; column 5; and column 6, lines 1-6; especially column 2, line 66 through column 3, line 2. The position is taken that the disclosure that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are "particularly preferred" fully encompasses applicants' mixtures of components (A) and (B) and is adequate to anticipate the claims. Furthermore, given applicants' breadth of

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ranges within claim 2, the position is taken that one would have immediately envisioned component amounts of the blend, such as 50:50 mixtures, that meet the claimed ratios.

4. Claims 1-6 and 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haeberle et al. ('367) in view of Morikawa et al. ('300).

As aforementioned, Haeberle et al. disclose dispersible polyisocyanate compositions, suitable for producing aqueous dispersions, coatings, and adhesives, wherein the dispersible polyisocyanates are produced by blending one or more polyisocyanates having a mean functionality of from 2.5 to 3.5 with an emulsifier produced by reacting a diisocyanate with a monohydric polyalkylene ether alcohol having 8 or more ethylene oxide units. Patentees further disclose that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are "particularly preferred". Biuret containing polyisocyanates and mixtures of the disclosed polyisocyanates are also disclosed as being suitable.

5. Even if it is determined that the argued disclosure within Haeberle et al. is insufficient to anticipate applicants' mixture of components (A) and (B), the position is taken that the production of dispersible polyisocyanate, wherein the polyisocyanate constitutes a blend of isocyanurate of hexamethylene diisocyanate and isocyanurate of isophorone diisocyanate, was known at the time of invention. This position is supported by Morikawa et al. See abstract; column 2, lines 15-47; column 3, lines 49-59; and column 4, lines 17-26. It is further noted that amounts of the respective isocyanurates are disclosed that significantly overlap those of claim 2 and the isocyanates are rendered dispersible by reacting them with a reactant fully analogous to that of Haeberle et al. and applicants. Morikawa et al. further disclose that their mixture is non-yellowing, is not deteriorated by weather, has high hardness, and is quick drying. Accordingly,

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the position is ultimately taken that one of ordinary skill would have been motivated to utilize blends isocyanurate of hexamethylene diisocyanate and isocyanurate of isophorone diisocyanate as the high functionality polyisocyanate of the primary reference, so as to arrive at the instant invention. Furthermore, with respect to claim 6, in view of the secondary teachings, it would have been obvious to modify applicants' components (A) and (B) by reacting them with the nonionic group containing reactant.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haeberle et al. ('367), alone, or Haeberle et al. ('367) in view of Morikawa et al. ('300) as applied to claims 1-6 and 8-15 above, and further in view of Weyland et al. ('421).

As aforementioned, the teachings of Haeberle et al., alone, or Haeberle et al. in view of Morikawa et al. render the subject matter of claims 1-6 and 8-15 at least *prima facie* obvious; however, the references are silent with respect to applicants' claimed solvents of claim 7. Still, the use of the claimed solvents with water emulsifiable polyisocyanates was known at the time of invention. The position is supported by the teachings of Weyland et al. See abstract and columns 2-4, especially column 3, line 47 through column 4, line 11. Since both Haeberle et al. and Morikawa et al. disclose that solvents may be used, the position is taken that it would have been obvious to utilize the solvents of Weyland et al. as the solvents of these references. This position is bolstered by the fact that it has been held that it obvious to utilize a known compound for its art recognized purpose. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244. Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.


RABON SERGENT
PRIMARY EXAMINER